

Can extensive reading boost TOEIC scores?

Christopher Storey, Kenneth Gibson, and Rodger Williamson
The University of Kitakyushu

Reference Data:

Storey, C., Gibson, K., & Williamson, R. (2006). Can extensive reading boost TOEIC scores? In K. Bradford-Watts, C. Ikeguchi, & M. Swanson (Eds.) *JALT2005 Conference Proceedings*. Tokyo: JALT.

University students taking the TOEIC have difficulty completing the test. One problem appears to be slow reading rates, but traditional approaches to TOEIC do not include reading development activities. Extensive reading (ER) was, therefore, examined as a means of increasing reading rates. While in the experiment carried out the test group did not achieve significantly better results on the TOEIC post-test than the control ($t(40) = 0.41$), examination of questionnaire data indicated that 11 of the 21 test group subjects who averaged 52 minutes reading a week, achieved a 30% greater gain than the other 10 test group subjects (averaged 12 minutes per week reading). It was thought that more reading over a longer time period would have significantly boosted scores. The study also concluded that students should develop automaticity and fluency through a range of pleasure reading and teacher-directed activities.

大学生がTOEICテストを最後まで終わらせるのは困難である。読解速度が遅いことが問題のひとつであるが、従来のTOEIC学習法には、読解力を育てることが取り入れられていない。多読(ER)、つまり学生の理解度のレベルにあった本を読むことが読解速度を上げる方法であると検討できる。実験においては、検証グループは比較対照グループ($t(40) = 0.41$)に比べ統計的に有為な効果は認められなかった。しかし、アンケートによるデータによれば、検証グループ21人中の11人、1週間に平均52分読書をおこなった被験者は、平均して30%以上、比較対照グループの他の10人の被験者(1週間の平均読書時間12分)より上回っている。多読(ER)については、より長い時間かつ長い期間で読書を行えば顕著なスコアアップができるであろうと考えられる。この研究は、学生が楽しく読めること、それにあわせて指導者が、適切な学習活動を指示することも同様に、学生の自発的かつ流暢な英語能力を育てることができると、結論付けられる。

Whilst the benefits of extensive reading (ER) in language learning have been reported widely (Krashen, 2004; Nuttall, 2005), few studies have investigated the possible positive impact of ER on standardized tests such as the TOEIC® (Test of English for International Communication). This investigation describes how ER, using graded readers, impacted TOEIC scores for second- and third-year science students at a Japanese university. The background to the study and the hypotheses tested are explained below.

The TOEIC

The use of the TOEIC as an accepted means to measure English abilities continues to increase in the world of work. Universities have also recognized the value of the TOEIC as a means to quantify students' English skills in a valid and universally recognizable way. The latest available trends survey of TOEIC utilization (TOEIC, 2003) reported that some 114 universities and colleges in Japan use the test for accreditation and that a further 83 plan to do so in the future. However, if universities require students to achieve a certain TOEIC score, then they also have an obligation to provide TOEIC instruction for students. The usual approach is what Krashen (2004) labels "direct instruction" (p. 18). Students engage in a combination of two processes, firstly "skill-building" (Krashen, 2004, p. 18), consciously learning a rule and then practicing until the skill becomes automatic, and secondly "error correction" (Krashen, 2004, p. 18) in which corrective intervention aims to prevent repetition of a mistake. Whilst such direct training produces results, as Robb and Ercanbrack (1999) showed, ER appears to offer potential as an additional means to boost scores. In fact, there is already some support for the argument that ER increases scores on standard tests. A survey of international students taking TOEFL in the United States (Constantino, Lee, Cho, & Krashen, 1997), reported that "Despite the fact that subjects reported little reading in English, this variable was a significant predictor of TOEFL test performance" (p. 111).

University students

Turning now to the study participants, second and third-year science students, we ask, "What kind of scores do they typically achieve on standard TOEIC tests?" Observation by the researchers over a number of years indicates that an *average* science student will achieve a score of 300 to 400 points. This range is supported by the reported increase from 330 to 500 points achieved by graduates of Toyota National College of Technology (Yomiuri Shimbun, 2005) after they adopted ER. Interestingly, according to the official TOEIC utilization survey mentioned above (TOEIC, 2003), "63 percent (175 universities) saw scores between 500 and 645" (p. 5), which seems to suggest that the respondent institutions had students of above average ability. The report adds that, "these scores could probably be said to be the minimum expected scores for job seekers" (p. 5), suggesting that if students want to use TOEIC scores as tool to help them get a *good* job, their score needs to be over 500. Therefore, assisting students to increase their scores by around 150 points would seem to be a suitable goal. How can this be achieved? To answer this question we need to look more in depth at the TOEIC, and the factors that limit test takers.

The TOEIC score that test takers receive is converted from a raw score of 200, to a maximum possible score of 990. Table 1 shows how the test is broken down. The TOEIC Official Test Preparation Guide (2001) does not give an exact conversion factor, but rather an expected score range corresponding to a certain raw score. Deduction leads to 4.3 as a conservative estimate of the required multiplier.

Table 1. How the TOEIC test is scored

| Main Section | Sub Section | Raw Score | Time |
|-------------------------|--------------------------------|-----------|------------|
| Listening Comprehension | Part I Picture | 20 | 45 minutes |
| | Part II Question-Response | 30 | |
| | Part III Short Conversations | 30 | |
| | Part IV Short Talks | 20 | |
| | TOTAL | 100 | |
| Reading | Part V Incomplete Sentences | 40 | 75 minutes |
| | Part VI Error Recognition | 20 | |
| | Part VII Reading Comprehension | 40 | |
| | TOTAL | 100 | |

Source: Longman Preparation Series for the TOEIC Test, Introductory Course (2005, p. xi).

N.B: from May 2006, the new version of test will be released (see <www.toEIC.or.jp>).

Whilst the test-takers question answering speed is guided by the test audio for the Listening Comprehension section, this is not the case for the Reading section where students are simply given 75 minutes to answer all the questions. Observation suggests students often do not complete Part VII, which comes last and involves a greater volume of reading than other sections. One solution to this problem would seem to be to help students increase their reading speed. With this in mind the following hypotheses were formulated:

- A null hypothesis (H_0): adding ER to a TOEIC practice course will not improve student scores.
- An alternate hypothesis (H_1): adding ER to a TOEIC practice course will produce a significant improvement in student scores.

The next section describes how these hypotheses were tested using a group of university science students.

Methodology

This section describes the rationale behind the study design, the participants, the applied treatments and measurement considerations.

Rationale

The investigation sought to explore the relationship between ER and the performance of university students on the TOEIC. Since the effect of any treatment could be delineated in numerical terms as changes in test scores, the study lent itself well to quantitative methods. A pre-test

post-test experimental design was selected in which the test group treatment (ER) was the only difference between the inputs received by the two groups (Brown & Rodgers, 2002). Results were analyzed using a *t*-test to check for significance and also using *Cohen's d*, which is a measure of the size of the treatment effect. In addition, a post-program questionnaire provided insight into participants' actions and motivations.

Participants

The university students who took part were self-selected volunteers (see Appendix A) from a population of five hundred second and third-year students in a faculty of environmental engineering at a medium-sized municipal university. As first-year students they had taken two ninety-minute classes per week, one of which required about twenty minutes of computer-based TOEIC practice. Although those who volunteered to take part in the research project were probably more motivated than other faculty students to improve their English skills, none were taking any other TOEIC or ER study program, and were considered to be pretty typical of the second and third-year population as a whole.

Forty-two students elected to join the research project, and the whole group was given the pre-test. Individuals with similar raw scores were matched and then assigned to the control or test group at random. In accordance with good experimental design (Muijs, 2004), the two groups were made as equal as possible through balancing of the means and standard deviations (see Table 2). In addition, both groups were balanced in terms of numbers of second and

third-year students, the four departments in the faculty, and any overseas experience.

Table 2. Pre-test mean and standard deviation values

| | Control group | Test group |
|---------------------------|---------------|------------|
| Number of participants, N | 21 | 21 |
| Mean raw score | 86.81 | 87.50 |
| Standard deviation | 13.00 | 13.25 |

Treatments

Both groups were given an eight week TOEIC training program as Table 3 shows.

Care was taken to ensure that both groups received very similar TOEIC input in order to isolate ER as the difference between the groups. Measures taken to ensure equivalent input included:

- Differences in teaching styles between the two researchers who delivered the training program were evened out by switching classes every week.
- A detailed lesson plan was made for each class. This stipulated practice activities and their durations.
- The classes were taught at the same time, but in separate classrooms.
- Since the test group was given book reading (BR) as an additional homework, the control group was given additional TOEIC reading questions (TR).

Table 3. TOEIC training program

| Week | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|-----------------|---|--------------------------------------|---------------------------------------|---------------------------------------|---|--|---------------------------------------|---|-------------------------------------|
| Control group in class (time in minutes) | TOEIC test 1 | Part I (50) + CA (20) | Part V (50) + CA (20) | Part II (50) + CA (20) | Part VI (50) + CA (20) | Part III (50) + CA (20) | Part VII (50) + CA (20) | Part IV (50) + CA (20) | Review (50) + CA (20) | TOEIC test 2 (same as test 1) |
| Control group homework | | Part I + TR | Part V + TR | Part II + TR | Part VI +TR | Part III + TR | Part VII + TR | Part IV + TR | Review + TR | |
| Test group in class (time in minutes) | TOEIC test 1 | Part I (50) + RS+ BE+CA (20) | Part V (50) + BE+CA (20) | Part II (50) + BE+CA (20) | Part VI (50) + BE+CA (20) | Part III (50) + RS+ BK+CA (20) | Part VII (50) + BE+CA (20) | Part IV (50) + BK+CA (20) | Review (50) + RS+ BK+CA (20) | TOEIC test 2 (same as test 1) |
| Test group homework | | Part I + BR | Part V + BR | Part II + BR | Part VI +BR | Part III + BR | Part VII + BR | Part IV + BR | Review + BR | |

Note:

CA = communication activity

TR = TOEIC reading section questions

RS = reading speed check

BE = book exchange

BR = book reading

- Both researchers were positive about suggesting book reading to test group participants, without being overly enthusiastic or forceful in their recommendations (Muijs, 2004).

The test group treatment involved the following:

- A short discussion about difficulties in finishing the reading section of the TOEIC, and a suggestion that reading of graded books might help to develop reading skills. For the purposes of this study the graded readers used were a range of simplified texts designed for English learners and produced by major publishers.
- Reading speed checks administered in weeks 2, 6, and 9. Participants were asked to read, at their natural speed, a passage from a text at the 1,600 headword level (“C” on the Edinburgh Project on Extensive Reading [EPER] scale) for 5 minutes. Students reported the total number of words read, which was then converted into words per minute (see Table 4).
- From weeks 2 to 9, participants were asked to select a book that they thought to be interesting, and at their level of difficulty.
- Approximately 60 titles (3 per student), selected on the basis of appropriate level and reported popularity, were available each week. In the first three classes elementary readers were included in the selection box. These were removed in week 4 and more intermediate (EPER scale) books added.
- Participants were given two instructions:
 - ✱ Aim to read the book two times before the next class.

- ✱ Try to read the book a little faster for the second reading.

- During the book exchange time participants were casually asked what they thought about the book they had read the previous week.

The treatment targeted improvements in what Carver (1992, p. 87) calls “Gear 3”, the normal reading process of comprehension in complete sentences. In addition, participants in both groups were asked to complete a weekly *Homework Record* (Appendix B), and a post-course questionnaire (Appendix C).

Measurement

As the same official TOEIC practice test was used for the pre and post-test, reliability was considered to be high (Black, 1999). The researchers’ assumed that because the TOEIC is a standardized test, scores could be considered as continuous variables (Muijs, 2004). This meant that the *t*-test was a suitable means of checking for differences between post-test means (Muijs, 2004). Effect size was measured using *Cohen’s d* (Muijs, 2004).

Results

Reading speed

The test group reading speed increased by an average of 71% over the eight week course.

Table 4. Test group reading speed

| | Week 2 | Week 6 | Change (2 to 6) | Week 9 | Change (6 to 9) | Total change (2 to 9) |
|--------------------------------------|--------|--------|-----------------|--------|-----------------|-----------------------|
| Average reading speed (words/minute) | 77 | 107 | +30 | 132 | +25 | +55 |
| Percentage change between tests | | | +39 | | +23 | +71 |

TOEIC Practice test scores

The scores of the control and test groups increased.

Table 5. Pre and post TOEIC practice test raw scores

| | Control group | Test group |
|--|-----------------------------|-----------------------------|
| N | 21 | 21 |
| Mean of pre-test (test 1) (range of scores) | 86.81 [*373] (64 to 115) | 87.50 [*376] (65 to 116) |
| Mean of post test (test 2) [*TOEIC] (range of scores) | 94.57 [*407] (71 to 133) | 96.50 [*415] (75 to 114) |
| Change [*TOEIC] | +7.76 [*33] | +9.00 [*39] |
| Pre-test standard deviation | 13.00 | 13.25 |
| Post-test standard deviation | 19.50 | 9.69 |

*Approximate TOEIC score equivalent based on conversion factor of 4.3 (Arbogast et al., 2001).

Significance and effect size

An independent *t*-test for equality of means was performed on the post-test means with the following results.

Table 6. t-test of post-test means

| t | Degrees of freedom, df | Significance (2-tailed) | Mean difference | Standard error difference |
|------|------------------------|-------------------------|-----------------|---------------------------|
| 0.41 | 40 | 0.68 | 1.95 | 4.75 |

Note: values calculated using SPSS 13.0.

In addition *Cohen's d* was calculated as a measure of effect size.

Table 7. Cohen's d as a measure of effect size

| Value | 0 to 0.20 | 0.21 to 0.05 | 0.51 to 1.00 | > 1:00 |
|------------|-----------|--------------|--------------|--------|
| Effect* | weak | modest | moderate | strong |
| Calculated | 0.20 | | | |

*Based on Cohen's guidelines as reported by Muijs (2004).

According to the values obtained the difference between the means was not significant, as also indicated by the weak effect size, thus the null hypothesis could not be rejected.

Insights from homework record and post-course questionnaire

The researchers wanted to know if test group subjects thought that reading had helped them in the post-test. The *Homework Record* and post-course questionnaire were studied for insights.

Questioning of participants over the eight-week course indicated that some had done the book reading, whereas others had not. The weekly *Homework Record* provided a means to calculate the time participants spent on reading. For the purposes of this study a significant amount of reading was defined as more than 30 minutes per week.

Table 8. Book reading and increases in test scores

| Test group participants (N = 21) | Average increase in raw score | Average increase for whole test group |
|--|-------------------------------|---------------------------------------|
| 11 did > 30 minutes / week (average = 52 minutes / week) | 10.1 [*43] | 9 [*39] |
| 10 did < 30 minutes / week (average = 12 minutes / week) | 7.8 [*34] | |

*Approximate TOEIC score equivalent based on conversion factor of 4.3 (Arbogast et al., 2001).

The post-course questionnaire (Appendix C) asked test group participants if they thought that book reading had helped them when they took the post-test (“N106 GROUP” questions 3 and 4). Six of the eleven students who did a significant amount of reading made comments like:

- “My reading speed progress.”
- “I feel the reading speed rapidly.”

This was reflected in the number of students who said that they had time to finish the reading section (Appendix C, question 8).

Table 9. Participants completing reading section

| | Control group (N = 21) | Test group (N = 21) |
|-----------|------------------------|---------------------|
| Pre-test | 6 | 1 |
| Post-test | 8 | 7 |

Although the researchers took care to avoid any bias in the treatments given to the two groups, they wondered if the test group made more effort because they were asked to read books. An indication of this tendency was measured by asking the two groups to rate the effort they put into the course (Appendix C, question 6).

Table 10. Participant rated effort

| | Control (N = 21) | Test (N = 21) |
|--|------------------|---------------|
| Mean rating (1= very little; 5 = very much) | 3.15 | 3.10 |

The values obtained indicate that averaged effort was very similar.

Discussion

General considerations

The results, whilst somewhat disappointing in that H_0 could not be rejected, were not surprising if we consider the actual amount of ER done by test group subjects. As Grabe and Stoller (2002) point out in their account of key L2 reading studies “A real difficulty with this topic (ER) is the benefits of extensive reading cannot be seen in a relatively short period of time, and L2 teachers and reading programmes abandon extensive reading as an integral component of the curriculum before they see its real impact” (p. 144). In a study by Mason & Krashen (1997) Japanese university students that read extensively “made significantly better gains on a cloze test than a comparison class that devoted a great deal of time to cloze exercises” (p. 91). These students, however, focused the majority of class and homework time on graded reading and were given a target of about 50 books (EPER level F to C) in one semester (Mason & Krashen, 1997). Likewise, L1 Free Reading studies survey by Krashen (2004) showed better results over a longer time period. So even though it was not possible to reject the null hypothesis, ER could still be an effective means to boost TOEIC scores if carried on for a longer time period. This possible type II error could also have been countered by having a larger sample size (Muijs, 2004).

In fact, support for the effectiveness of ER as way of increasing TOEIC scores was found in the data from the *Homework Record*. The 11 of the 21 test group subjects who did more than 30 minutes (averaged 52 minutes) book reading a week gained an average of 10.1 raw score points compared to the remaining 10 subjects who averaged 7.8

points increase. This 30% difference indicates that ER could have significantly increased TOEIC scores if the sample size had been larger and the numbers actively participating greater. Interestingly, the 7.8 point raw score gain achieved by test group subjects who reported very little reading was same as the average gain by the control group.

As regards the 150 point TOEIC score increase target identified in the Background section as an appropriate goal for university students, it seems apparent that whether students are given only direct TOEIC instruction, only ER, or a combination of both more input over a longer period is required if scores of over 500 are to be achieved.

Criticisms

On reflection the study had a number of weaknesses, which are discussed below.

1. Reading rate of the control group

The test group book reading treatment was designed to increase reading rates in line with the alternate hypothesis. However, the effect on reading rates resulting from the use of TOEIC practice materials was not measured. This could have been done by giving the control group the same reading speed test as the test group.

2. Comprehension

The hypothesis formulated did not take comprehension into account. As one student in the test group commented, “*My reading speed progress. But comprehension is no progress.*”

Comprehension could have been measured using a suitable cloze test. Although reading rate was a useful starting point, developing reading fluency, which encompasses comprehension, would have been more suitable focus for the study.

3. Volume of book reading and motivation.

Half of the subjects in the test group only did an average of 12 minutes reading per week. Reference to other studies which sought to demonstrate the effectiveness of ER (Mason & Krashen, 1997; Taguchi, Takayasu-Maass, & Gorsuch, 2004) shows that this was inadequate. Upon reflection, a number of issues were identified:

- The time and focus given to book reading at the start of the program may not have been sufficient to get test group participants into the habit of book reading. Compared to the type of activities reported by Bamford and Day (2004) for starting off ER programs, the introduction to ER was probably not sufficient to motivate students to become regular readers. A suitable written introduction in Japanese would have been a quick, and probably most effective way, to explain the rationale behind graded reading in combination with activities to introduce the available titles.
- More accountability over the treatment period regarding the amount and quality of reading than the participant reported Homework Record used would have most likely improved results. A monitoring activity, something like the reading record described in Bamford and Day (2004) would have shown more

clearly how much reading was being done.

Part of the reason the above mentioned actions were not included in the research design relate to the desire to avoid explicit reference to the treatment in accordance with good experimental practice. Achieving a suitable balance is something that should be carefully considered in future studies.

Links to theory

If developing reading fluency is an appropriate goal for university students and educators, what can we learn from theory? In their study of reading fluency, Taguchi, Takayasu-Maass and Gorsuch (2004) found that “Fluency alone...does not guarantee successful reading. Cognitive and metacognitive reading strategies and schemata that readers utilize also play important roles in constructing meaning from text” (p. 86). However, the researchers did report that “assisted repeated reading can potentially develop weak ESL/EFL readers’ fluency and help them become independent readers by providing...scaffolding” (p. 86). Although repeated reading was part of the study, in class practice with suitable monitoring would seem to be required for this to be effective. Grabe and Stoller (2002) support this view and ask an important question “...fluency and automaticity are now seen as essential foundations for reading comprehension, but how can they be developed...?” (p. 79). Their answer is “to integrate a range of instructional activities into L2 reading lessons to promote fluency and automaticity. The most common ways are...timed and paced reading activities, extensive reading activities, word

recognition exercises..., read alouds..., and a range of rereading activities” (p. 79). It seems, then, that building fluency should involve not only extensive reading, but other reading activities which will develop learners into competent readers capable of switching between the five gears Carver describes (Carver, 1992).

Future research

Two investigations are planned:

- A study similar to this investigation in which the alternate hypothesis is that *adding reading fluency building activities to TOEIC training will significantly increase scores.*
- A longer-term quasi-experimental study (intact classes) using first-year subjects that aims to identify effective reading competency building strategies for science students.

Conclusion

This study sought to investigate the relationship between extensive reading (ER) and TOEIC scores. However, the null hypothesis, that *adding ER to a TOEIC practice course will not improve students' scores*, could not be rejected ($t(40) = 0.41$). Further analysis found that test group subjects could be divided into those who did the requested reading (average 52 minutes per week) and those that did very little (average 12 minutes per week). The 11 participants who read more achieved an average gain 30% greater (43 points) than the 10 who did much less reading (34 point gain). The average

control group increase was 33 points suggesting that ER had some effect. In line with the findings of other reading researchers (Mason & Krashen, 1997; Grabe & Stoller, 2002) the study concludes that positive effects of ER on TOEIC scores would require more reading over a longer period than the 10 weeks of the investigation.

Whilst the researchers initially considered increased reading rate as means to better TOEIC scores, on reflection they realized that comprehension should have been measured. For students, developing automaticity and reading fluency emerged as suitable goals. Although ER is worthwhile in itself, perhaps both pleasure reading and teacher-directed activities have a part to play in developing competent readers.

Christopher Storey is a lecturer in the Faculty of Environmental Engineering at the University of Kitakyushu. His interests include reading, student-centred learning and business English. He can be contacted at storey@env.kitakyu-u.ac.jp

Kenneth Gibson is a visiting lecturer in the Faculty of Environmental Engineering at the University of Kitakyushu. His interests include extensive listening and reading, extensive comprehensible input and computer assisted learning. He can be reached at ken@env.kitakyu-u.ac.jp

Rodger Williamson is an associate professor in the Faculty of Engineering at the University of Kitakyushu. His research areas include comparative culture and intercultural communication studies. He is also interested in applications of extensive reading for English Language programs at the university level. He can be contacted at rodger@env.kitakyu-u.ac.jp

u.ac.jp.

References

- Arbogast, B., Ashmore, E., Duke, T., Jerris, K. N., Locke, M., & Shearin, R. (2001). *TOEIC Official Test-Preparation Guide*. Princeton: Education Testing Service.
- Bamford, J., & Day, R. R. (2004). *Extensive Reading Activities for Teaching Language*. Cambridge, UK: Cambridge.
- Black, T. R. (1999). *Doing Quantitative Research in the Social Sciences*. London: Sage.
- Brown, J.D., & Rodgers, T.S. (2002). *Doing Second Language Research*. Oxford, UK: Oxford.
- Carver, R. P. (1992). Reading rate: Theory, research and practical implications. *Journal of Reading*, 36(2), 84-95.
- Constantino, R., Lee, S., Cho, K., & Krashen, S. (1997). Free Voluntary Reading as a Predictor of TOEFL Scores. *Applied Language Learning*, 8(1), 111-118.
- Grabe, W., & Stoller, F.L. (2002). *Teaching and Researching Reading*. Harlow, UK: Pearson.
- Krashen, S. D. (2004). *The power of reading: insights from the research* (2nd ed.). Portsmouth, NH: Heinemann.
- Lougheed, L. (2005). *Longman Preparation Series for the TOEIC Test, Introductory Course, Now Updated!* (3rd ed.). New York: Pearson Education.
- Mason, B., & Krashen, S. (1997). Extensive Reading in English as a Foreign Language. *System*, 25(1), 91-102.
- Muijs, D. (2004). *Doing Quantitative Research in Education with SPSS*. London: Sage.
- Nutall, C. (2005). *Teaching Reading Skills in a foreign language*. Oxford, UK: Macmillian.
- Robb, T. N., & Ercranbrack, J. (1999). A Study of the Effect of Direct Test Preparation on the TOEIC Scores of Japanese University Students. *TESL-EJ*, 3, 4. Retrieved November 26, 2005 from <http://writing.berkeley.edu/TESL-EJ/ej12/a2.html>
- Taguchi, E., Takayasu-Maass, M., & Gorsuch, G. J. (2004, October 2). Developing reading fluency in EFL: How assisted repeated reading and extensive reading affect fluency development. *Reading in a Foreign Language*, 16, 70-96. Retrieved November 26, 2005 from <nflrc.hawaii.edu/rfl/October2004/taguchi/taguchi.pdf>
- The Yomiuri Shimbun, (2005, June 6). Library pushes English, 1 mil. words at a time. *Daily Yomiuri Online*. Retrieved November 26, 2005, from <www.yomiuri.co.jp/dy>
- TOEIC. (2003). *The 12th Trends Survey of TOEIC Utilization (July 2003)*. Retrieved November 26, 2005 from <www.toeic_en/media/pdf/12th_TOEIC>http://www.toeic.or.jp/toeic_en/media/pdf/12th_TOEIC_Utilization.pdf

Appendix A

All second and third year students were e-mailed the following offer to participate in the research project.

研究プロジェクト

私たち(ストーリー、ギブソン、ウィリアムソン)は、TOEIC®(英語によるコミュニケーション能力を評価するテスト)に関する研究プロジェクトにボランティアとして参加する2、3年生を募集しています。

この研究プロジェクトはストーリー、ギブソン、ウィリアムソンの3名の教師が行うものです。もし下記内容を読んで質問がある場合は直接3人の教師に質問して下さい。(N305へ)

みなさんにはこのプロジェクトに被験者として参加してもらうこととなりますが、参加することによって以下のようなメリットを享受することが出来ます。

- ・ 全授業を受ける前・後でのテストにより自分の英語コミュニケーション能力を客観的に知ることが出来る
- ・ 無料TOEIC教材の受領
- ・ 授業に出席し英語でディスカッションする技術をみがける
- ・ 週一回のクラス、5月から7月までの10週間のみ
- ・ ネイティブ教師(ストーリー、ウィリアムソン)による指導

これは自発的な活動ですから、私たちは学生に毎週必ず参加することを条件として求めます。もしこの条件を守れなければこの研究プロジェクトに参加しないで下さい。正確な授業予定は参加する学生が決まり次第、スケジュールを考慮の上決定します。参加を希望する学生は下記の「同意書」に記入し、この紙を渡した先生に提出してください。

重要:この研究プロジェクトは2、3年生全員を対象としていますが、各学科の参加者が同じ比率になるよう調整するため、残念ながら各学科より限られた人数の学生を先着順で受け入れます。参加を希望する学生は「同意書」を授業の終わりに先生に提出して下さい。

✕-----

同意書

私_____は上記の条件で研究プロジェクトに参加します。

(あなたの名前)

参加にあたっては、以下のことに同意し、行います。

- (1) 私は毎週参加します。
- (2) 私は全授業を受ける前・後のテストを受けます。
- (3) ストーリー、ギブソン、ウィリアムソン各先生が行うデータ収集(テスト、アンケートなど)に協力することを承認します。
- (4) (3)のデータをストーリー、ギブソン、ウィリアムソン各先生が研究目的で利用することを承諾します。(ただしデータは匿名扱いとなります)

署名_____ 日付_____

学科 化学 / デザイン / 情報 / 機械
クラス A B C D E F G H I J

大学emailアドレス _____

Appendix B

Subjects were asked to complete a log of their study time.

Homework Record

Please make a record of your study here and return this paper to your teacher at the start of class each week.

Name: _____ Class: _____

*****TOEIC Listening Practice*****

_____ minutes _____ minutes _____ minutes

_____ minutes _____ minutes _____ minutes

_____ Total Minutes

*****TOEIC Reading Practice*****

_____ minutes _____ minutes _____ minutes

_____ minutes _____ minutes _____ minutes

_____ Total Minutes

*****Other Study*****

What You Studied

_____ minutes _____ minutes _____ minutes

_____ minutes _____ minutes _____ minutes

_____ Total Minutes

*****Total Study Time*******Appendix C**

Post-course questionnaire (only questions reported in this paper are shown).

TOEIC 練習コース アンケート

6. このコースを受けてみて、あなたにはどれくらい効果がありましたか？

1. なし 2. 少しあった 3. まあまあ 4. なかなかあった 5. 大変あった

8. リーディング問題について

| TOEIC TEST | あなたはリーディング問題を最後まで終えることができましたか？当てはまるものを○でかこんでください。 | またその理由について下の欄に記入して下さい。 |
|------------|---|------------------------|
| 第1回目(5/24) | はい いいえ | |
| 第2回目(7/26) | はい いいえ | |

N106 グループ

以下の表に、あなたのリーディングスピードの得点(語/分)について全て記入してください。

3. 最後の TOEIC テストを受けて、その読書があなたの助けになったと思いますか？

1 2 3 4 5

4. 上の3つの質問の答えについてそれはなぜか書いて下さい。
